

3/24

ced-3 Genomic Sequence

	AGATCTGAAATAAGGTGATAAATTAAATTAAGTGTATTTCTGAGGAAATTTGACTGT	C 0
1	TTTAGCACAATTAATCTTGTTTCAGAAAAAAAGTCCAGTTTTCTAGATTTTTCCGTCTTA	60
61		120
	${\tt TTGTCGAATTAATATCCCTATTATCACTTTTTCATGCTCATCCTCGAGCGGCACGTCCTC}$	
121		180
181	AAAGAATTGTGAGAGCAAACGCGCTCCCATTGACCTCCACACTCAGCCGCCAAAACAAAC	240
-01	GTTCGAACATTCGTGTGTTGTGCTCCTTTTCCGTTATCTTGCAGTCATCTTTTGTCGTT	210
241		300
201	TTTTCTTTGTTCTTTTTTTGTTGAACGTGTTGCTAAGCAATTATTACATCAATTGAAGAAAA	260
301	GGCTCGCCGATTTATTGTTGCCAGAAAGATTCTGAGATTCTCGAAGTCGATTTTATAATA	360
361		420
	TTTAACCTTGGTTTTTGCATTGTTTCGTTTAAAAAAACCACTGTTTATGTGAAAAACGA	
421		480
481	TAGTTTACTAATAAAACTACTTTTAAACCTTTACCTTACCTCACCGCTCCGTGTTCATG	540
401	GCTCATAGATTTTCGATACTCAAATCCAAAAATAAATTTACGAGGGCAATTAATGTGAAA	340
541		600
	${\tt CAAAAACAATCCTAAGATTTCCACATGTTTGACCTCTCCGGCACCTTCTTCCTTAGCCCCC}$	
601	ACCACTCCATCACCTCTTTGGCGGTGTTCTTCGAAACCCACTTAGGAAAGCAGTGTGTAT	660
661	•	720
001	CTCATTTGGTATGCTCTTTTCGATTTTATAGCTCTTTGTCGCAATTTCAATGCTTTAAAC	, 20
721		760
701	AATCCAAATCGCATTATATTTGTGCATGGAGGCAAATGACGGGGTTGGAATCTTAGATGA	040
/81	GATCAGGAGCTTTCAGGGTAAACGCCCGGTTCATTTTGTACCACATTTCATCATTTTCCT	840
841		900
	$\tt GTCGTCCTTGGTATCCTCAACTTGTCCCGGTTTTGTTTT$	
901		960
961	CACCTGTCTCCGTCTCAATTATCGTTTAGAAATGTGAACTGTCCAGATGGGTGACTCATA	1020
701	TTGCTGCTGCTACAATCCACTTTCTTTTCTCATCGGCAGTCTTACGAGCCCATCATAAAC	1020
1021		1080
	TTTTTTTCCGCGAAATTTGCAATAAACCGGCCAAAAACTTTCTCCAAATTGTTACGCAA	
1081	TATATACAATCCATAAGAATATCTTCTCAATGTTTATGATTTCTTCGCAGCACTTTCTCT	1140
1141		1200
	${\tt TCGTGTGCTAACATCTTATTTTTATAATATTTCCGCTAAAATTCCGATTTTTGAGTATTA}$	
1201		1260
1261	ATTTATCGTAAAATTATCATAATAGCACCGAAAACTACTAAAAATGGTAAAAGCTCCTTT	1220
1201		1320
	Repeat 1	
1221	TAAATCGGCTCGACATTATCGTATTAAGGAATCACAAAATTCTGAGAATGCGTACTGCGC	1300
1361		1300
	${\tt AACATATTTGACGGCAAAATATCTCGTAGCGAAAACTACAGTAATTCTTTAAATGACTAC}$	
1381		1440

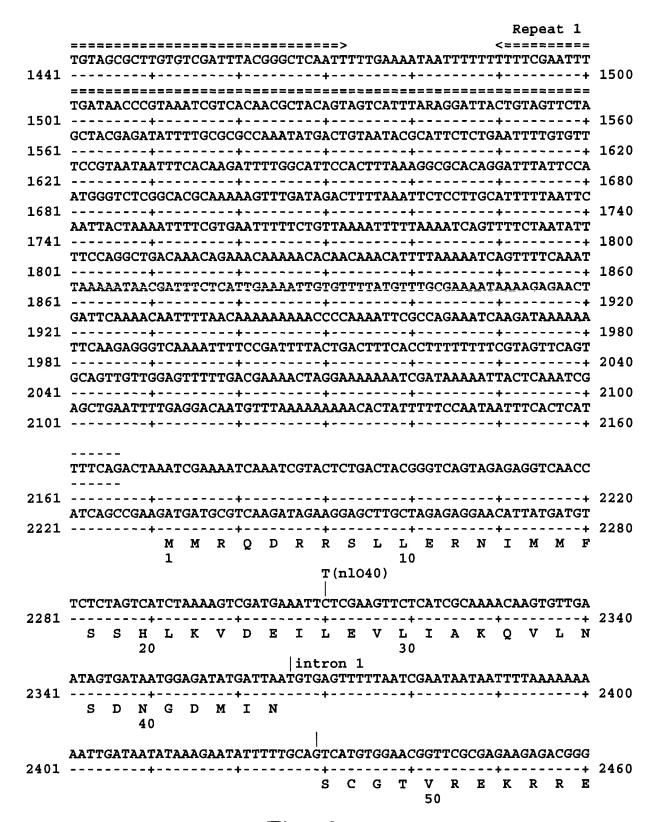


Fig. 3 (cont.)

A(n718) AGATCGTGAAAGCAGTGCAACGACGGGGAGATGTGGCGTTCGACGCGTTTTATGATGCTC I V K A V Q R R G D V A F D A F Y D A L 60 70 intron 2 TTCGCTCTACGGGACACGAAGGACTTGCTGAAGTTCTTGAACCTCTCGCCAGATCGTAGG 2521 -----+-----+ 2580 R S T G H E G L A E V L E P L A R S 80 TTTTTAAAGTTCGGCGCAAAAGCAAGGGTCTCACGGAAAAAAGAGGCGGATCGTAATTTT 2581 -----+----+ 2640 GCAACCCACCGGCACGGTTTTTTCCTCCGAAAATCGGAAATTATGCACTTTCCCAAATAT 2641 -----+----+ 2700 2701 -----+----+ 2760 ACACACATCTCCTTCAAATATCCCTTTTTCCAGTGTTGACTCGAATGCTGTCGAATTCGA 2821 -----+----+ 2880 V D S N A V E F E 100 GTGTCCAATGTCACCGGCAAGCCATCGTCGGAGCCGCGCATTGAGCCCCGCCGGCTACAC 2881 -----+----+ 2940 C P M S P A S H R R S R A L S P A G Y T TTCACCGACCCGAGTTCACCGTGACAGCGTCTCTTCAGTGTCATCATTCACTTCTTATCA 2941 -----+-----+ 3000 S P T R V H R D S V S S V S S F T S Y O 130 3001 -----+ 3060 D I Y S R A R S R S R S R A L H S S D R 150 1 60 intron 3 ACACAATTATTCATCTCCTCCAGTCAACGCATTTCCCAGCCAACCTTGTATGTTGATGCG H N Y S S P P V N A F P S Q P S 170 Repeat 1 **AACACTAAATTCTGAGAATGCGCATTACTCAACATATTTGACGCGCAAATATCTCGTAGC** *==== GAAAAATACAGTAACCCTTTAAATGACTATTGTAGTGTCGATTTACGGGCTCGATTTTCG 3181 -----+ 3240

5/24

Fig. 3 (cont.)

	AAACGAATATATGCTCGAATTGTGACAACGAATTTTAATTTGTCATTTTTGTGTTTTTCTT	
3241		3300
	Deposit 1	
	Repeat 1	
2221	TTGATATTTTTGATCAATTAATAAATTATTTCCGTAAACAGACACCAGCGCTACAGTACT	2260
3301		3360
	CTTTTAAAGAGTTACAGTAGTTTTCGCTTCAAGATATTTTGAAAAGAATTTTAAACATTT	
3361		3420
	${\tt TGAAAAAAAATCATCTAACATGTGCCAAAACGCTTTTTTCAAGTTTCGCAGATTTTTTGA}$	
3421	+	3480
	Repeat 2	
	TTTTTTTCATTCAAGATATGCTTATTAACACATATAATTATCATTAATGTGAATTTCTTG	
3481		3540
	TAGAAATTTTGGGCTTTTCGTTCTAGTATGCTCTACTTTTGAAATTGCTCAACGAAAAAA	
3541	+	3600
	=======================================	
	TCATGTGGTTTGTTCATATGAATGACGAAAAATAGCAATTTTTTATATATTTTCCCCTAT	
3601	+	3660
	TCATGTTGTGCAGAAAAATAGTAAAAAAGCGCATGCATTTTTTCGACATTTTTTACATCGA	
3661		3720
	========>	
	${\tt ACGACAGCTCACTTCACATGCTGAAGACGAGAGACGCGGAGAAATACCACACTCTTTCT}$	
3721	+	3780
	Repeat 2	
	<	
	GCGTCTCTCGTCTTCAGCATGTGAAATGGGATCTCGGTCGATGTAAAAAAATGTCGAATA	
3781	+	3840
	ATGTAAAAATGCATGCGTTTTTTTACACTTTTCTGCACAAATGAATAGGGGGAAAATGT	
3841	+	3900
	ATTAAAATACATTTTTTGTATTTTTCAACATCACATGATTAACCCCCATTATTTTTTCGTT	
3901		3960
	GAGCAACTTAAAAAGTAGAGAATATTAGAGCGAAAACCAAAATTTCTTCAAGATATTACC	
3961		4020
	TTTATTGATAATTATAGATGTTAATAAGCATATCTTGAATGAA	
4021	+	4080
	Fig. 3 (cont.)	
	1 19. 0 (COIIL)	

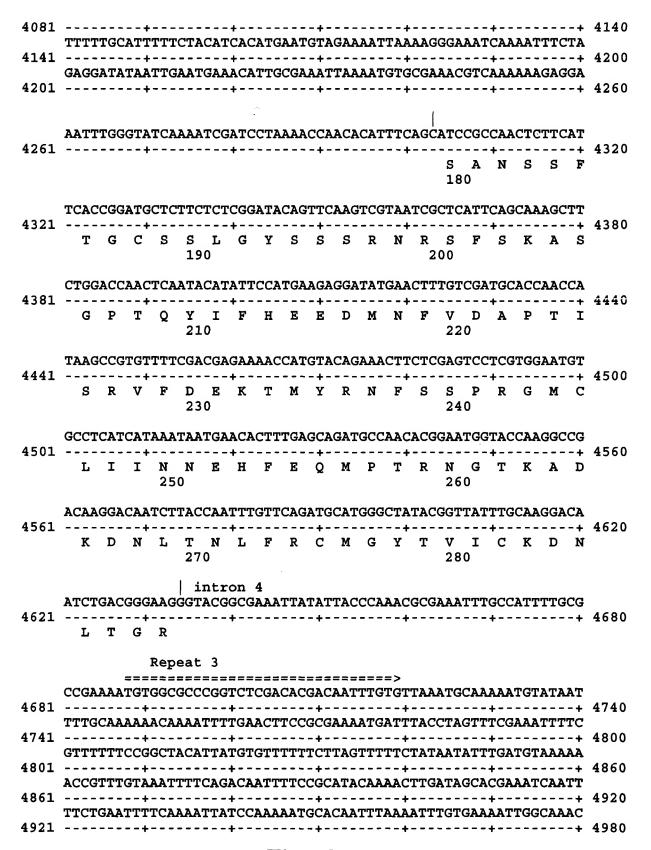


Fig. 3 (cont.)

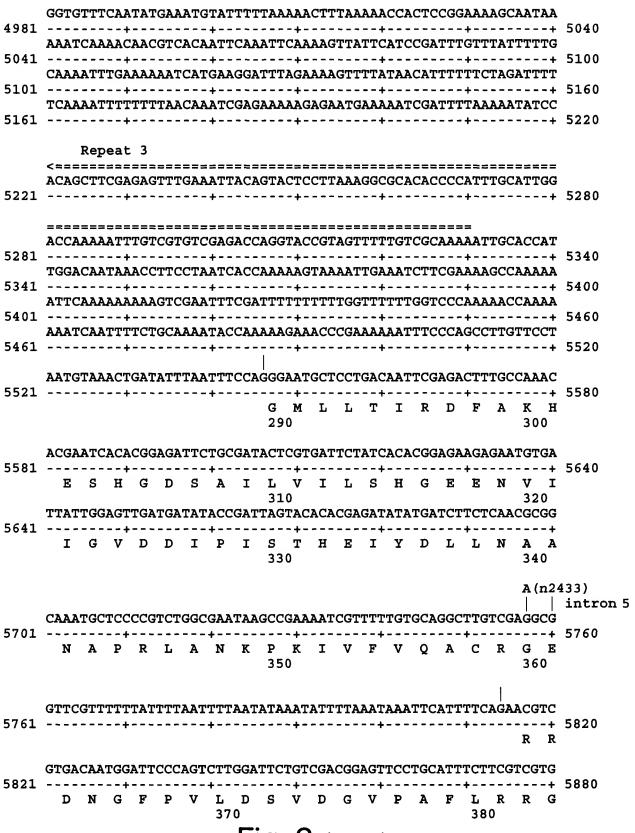
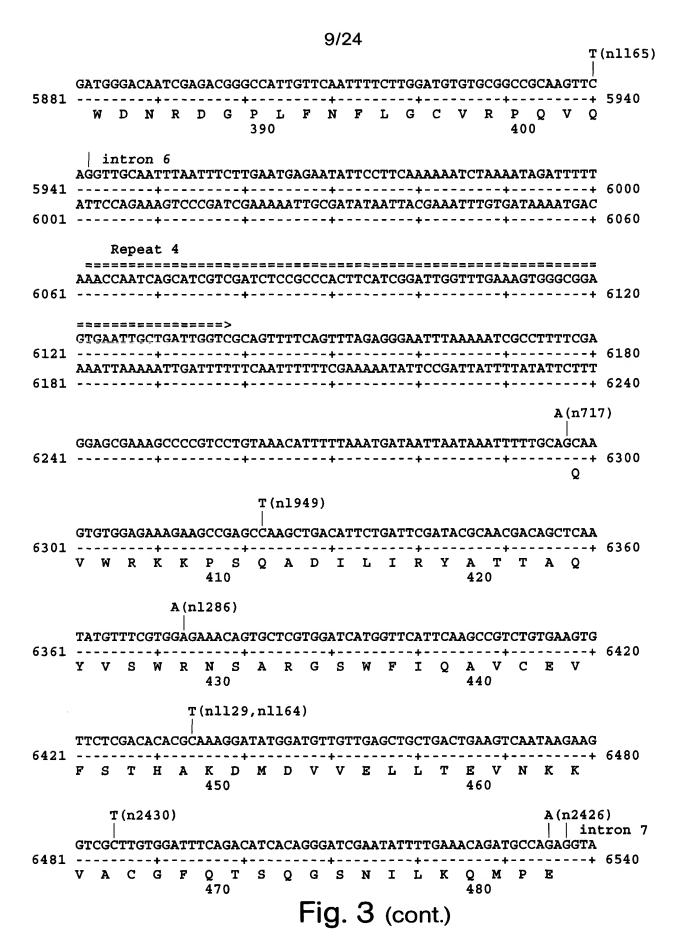


Fig. 3 (cont.)



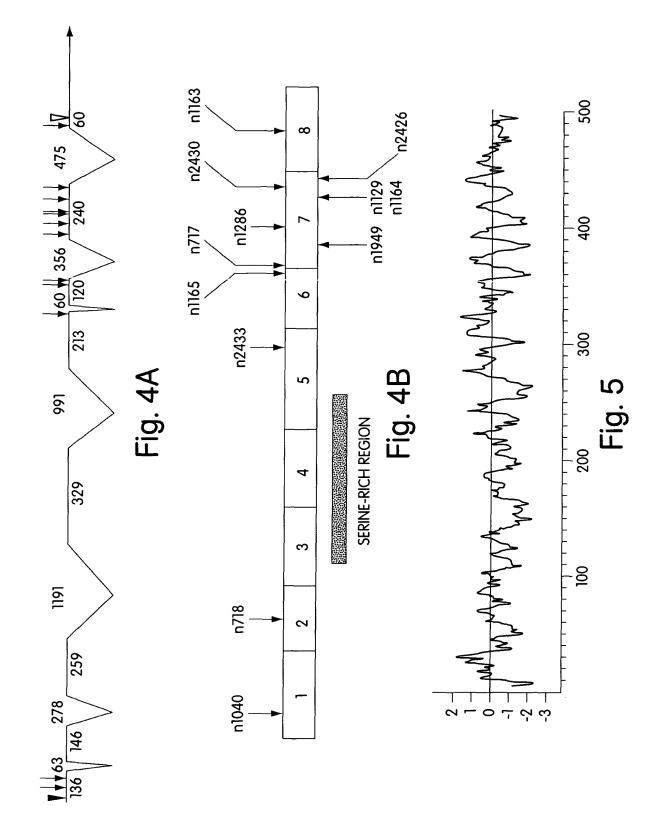
10/24

Repeat 5

6541	CTTGAAACAATGCATGTCTAACTTTTAAGGACACAGAAAAATAGGCAGAGGCTCCT	6600					
0311							
	TTTGCAAGCCTGCCGCGCGTCAACCTAGAATTTTAGTTTTTAGCTAAAATGATTGAT						
6601	GAATATTTTATGCTAATTTTTTTGCGTTAAATTTTGAAATAGTCACTATTTATCGGGTTT	6660					
6661		6720					
6721	CCAGTAAAAATGTTTATTAGCCATTGGATTTTACTGAAAACGAAAATTTGTAGTTTTTC	6780					
6781	AACGAAATTTATCGATTTTTAAATGTAAAAAAAAAAATAGCGAAAATTACATCAACCATCAA	6840					
	${\tt GCATTTAAGCCAAAATTGTTAACTCATTTAAAAATTAATT$						
6841		6900					
	Repeat 5						
	ACACGGTTGGCGCGCGAAGTTTGCAAAACGACGCTCCGCCTCTTTTTCTGTGCGGCTT						
6901		6960					
	T(n1163)					
	GAAAACAAGGGATCGGTTTAGATTTTTCCCCAAAATTTAAATTAAATTTCAGATGACATC	7000					
6961	M T S	7020					
	CCGCCTGCTCAAAAAGTTCTACTTTTGGCCGGAAGCACGAAACTCTGCCGTCTAAAATTC						
7021	R L L K K F Y F W P E A R N S A V *	7080					
	490 500						
7081	ACTCGTGATTCATTGCCCAATTGATAATTGTCTGTATCTTCTCCCCCAGTTCTCTTTCGC	7140					
7141	CCAATTAGTTTAAAACCATGTGTATATTGTTATCCTATACTCATTTCACTTTATCATTCT	7200					
7200	ATCATTTCTCTCCCATTTTCACACATTTCCATTTCTCTACGATAATCTAAAATTATGAC						
/20.	1	7060					
	l+++++++						
	GTTTGTGTCTCGAACGCATAATAATTTTAATAACTCGTTTTGAATTTGATTAGTTGTTGT						
	GTTTGTGTCTCGAACGCATAATAATTTTAATAACTCGTTTTGAATTTGATTAGTTGTTGT GCCCAGTATATATGTATGTACTATGCTTCTATCAACAAAATAGTTTCATAGATCATCACC	7320					
7321	GTTTGTGTCTCGAACGCATAATAATTTTAATAACTCGTTTTGAATTTGATTAGTTGTTGT GCCCAGTATATATGTATGTACTATGCTTCTATCAACAAAATAGTTTCATAGATCATCACC CCAACCCCACCAACCTACCGTACCATATTCATTTTTTGCCGGGAATCAATTTCGATTAATT	7320 7380					
7321 7381	GTTTGTGTCTCGAACGCATAATAATTTTAATAACTCGTTTTGAATTTGATTAGTTGTTGT GCCCAGTATATATGTATGTACTATGCTTCTATCAACAAAATAGTTTCATAGATCATCACC CCAACCCCACCAACCTACCGTACCATATTCATTTTTTGCCGGGAATCAATTTCGATTAATT	7320 7380 7440					
7321 7381 7441	GTTTGTGTCTCGAACGCATAATAATTTTAATAACTCGTTTTGAATTTGATTAGTTGTTGT GCCCAGTATATATGTATGTACTATGCTTCTATCAACAAAATAGTTTCATAGATCATCACC CCAACCCCACCAACCTACCGTACCATATTCATTTTTTGCCGGGAATCAATTTCGATTAATT TTAACCTATTTTTTCGCCACAAAAAAATCTAATATTTGAATTAACGAATAGCATTCCCATC	7320 7380 7440 7500					
7321 7381 7441 7501	GTTTGTGTCTCGAACGCATAATAATTTTAATAACTCGTTTTGAATTTGATTAGTTGTTGT GCCCAGTATATATGTATGTACTATGCTTCTATCAACAAAATAGTTTCATAGATCATCACC CCAACCCCACCAACCTACCGTACCATATTCATTTTTTGCCGGGAATCAATTTCGATTAATT TTAACCTATTTTTTCGCCACAAAAAAATCTAATATTTGAATTAACGAATAGCATTCCCATC TCTCCCGTGCCGGAATGCCTCCCGGCCTTTTAAAGTTCGGAACATTTGGCAATTATGTAT AAATTTGTAGGTCCCCCCCCATCATTTCCCGCCCCATCATCTCAAATTGCATTCTTTTTCG	7320 7380 7440 7500 7560					
7321 7381 7441 7501	GTTTGTGTCTCGAACGCATAATAATTTTAATAACTCGTTTTGAATTTGATTAGTTGTTGT GCCCAGTATATATGTATGTACTATGCTTCTATCAACAAAATAGTTTCATAGATCATCACC CCAACCCCACCAACCTACCGTACCATATTCATTTTTTGCCGGGAATCAATTTCGATTAATT TTAACCTATTTTTTCGCCACAAAAAAATCTAATATTTGAATTAACGAATAGCATTCCCATC TCTCCCGTGCCGGAATGCCTCCCGGCCTTTTAAAGTTCGGAACATTTGGCAATTATGTAT	7320 7380 7440 7500 7560					

Fig. 3 (cont.)





12/24 Alignment of ced-3 and Human Interleukin -1 β convertase

ICE	1	MADKVLKEKRKLFIRSMGEGTINGLLDELLQTRVLNKEEMEKVKRE .: .:: . : : : : : : : : .:: : :
Ced-3	1	MMRQDRRSLLERNIMMFSSHLKVDEILEVLIAKQVLNSDNGDMIN.S
		↓ F
BGAFQ		
PBA		
		,
	47	NATVMDKTRALIDSVIPKGAQACQ.ICITYICEEDSYLAGTLGLSADQTS
	47	NATVMDKTRALIDSVIPKGAQACQ.ICITYICEEDSYLAGTLGLSADQTS : .: .: .
	47	CGŤVREKRŘEIVKAVQRPĠDVÁFDAFYDALRSTGHEGLÁEVLEPLÁRSVD
BFAFQ		R
PBA		=======================================
	0.5	autocleavage site
	96	GNYLNMQDSQGVLSSF
	97	SNAVEFECPMSPASHRRSRALSPAGYTSPTRVHRDSVSSVSSFTSYODIY
DONEO		serine-rich region
BGAFQ PBA		
	112	papqavqdnpamptssgsegnvklcsle
	147	: ::. ::. : . ::. :
BGAFQ PBA		=======================================
- 2		
	140	EAQRIWKQKSAEIYPIMDKSSRTRLAL
	107	DATE CHARGE A CODMON THE HER DANIES DATE OF THE PERMANENT AND THE CONTRACT OF THE PERMANENT AND THE PERMANENT
	197	RNRSFSKASGPTQYIFHEEDMNFVDAPTISRVFDEKTMYRNFSSPRGMCL
BGAFQ		

Fig. 6A

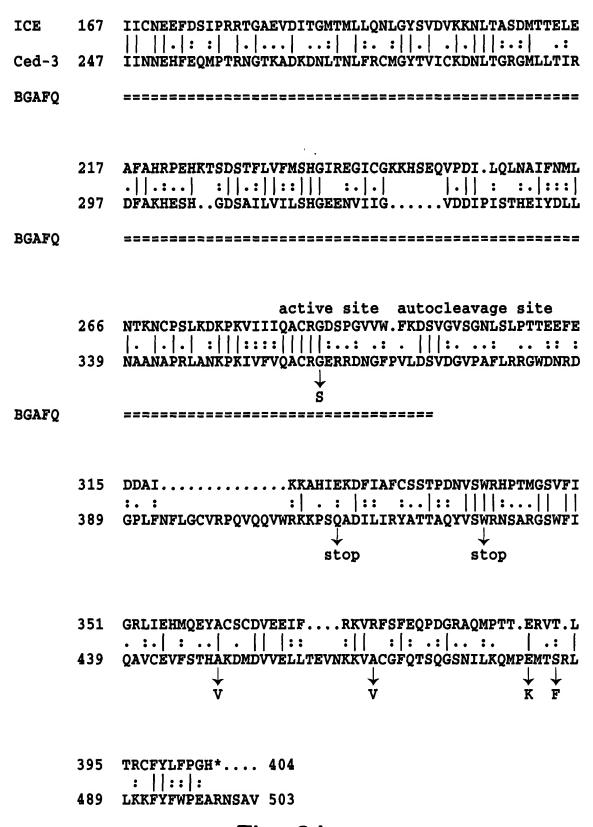


Fig. 6A (cont.)

Alignment of Ced-3 and Murine NEDD-2

		n1164.			
300	350 37	TRP 400 73 V n1129,	450	498 168	
EHFEQMPTRNGTKADKDNLTNLFRCMGYTVICKDNLTGRGMLLTIRDFAK :	HES	KIVFVQACRGERRDNGFPVLDSVDGVPAFLRRGWDNRDGPLFNFLGCVRP .:::. ::: PLLLYETDRGVDQQDGKNHTQSPGCEESDAGKEELM	QVQQVWRKKPSQADILIRYATTAQYVSWRNSARGSWFIQAVCEVFSTE: .	DMDVVELLTEVNKKVACGFQTSQGSNILKQMPEMTSRLLKKFYFWPEA	RNSAV 503 PPT 172 Fig. 6B
251 1	301	351 38	401 74	451 119	499
Ced-3 NEDD-2					

Alignment of N-terminal regions of ced-3/ICE- related proteins

8			J/ Z4			
MMRQDRWSILERNILEFSSKLQADLILDVLIAKQVLNSDNGDVINSCRTERDNEKEIVKAVQRRGDEAFDAFYDALRDTGENDLADVLMPLSRPNPV MMRQDRRSLLERNIMMFSSHLKVDEILEVLIAKQVLNSDNGDMINSCGTVREKRREIVKAVQRPGDVAFDAFYDALRSTGHEGLAEVLEPLARSVDSNAV 100	$\texttt{M}.\dots.\dots.\texttt{AD}.\texttt{IL}.\dots\texttt{R.KRK}\dots\texttt{V}\texttt{G}.\dots\texttt{D}.\texttt{L}.\texttt{T}.\dots.\texttt{VL}.\dots\texttt{V}$	PMECPMSPSSHRRSRALSPPGYASPTRVHRDSISSVSSFTSTYQDVYSRARSSSRSSRPLQSSDRHNYMSAA-TSFPSQPSSANSGFTGCASLGYSSSRN EFECPMSPASHRRSRALSPAGYTSPTRVHRDSVSSVSSFTSYQD-IYSRARSRSAS-RALHSSDRHNYSSPPVNAFPSQPSSANSGFTGCSSLGYSSSRN 198	RALISYS.SRS.R.L.SSDRHNY.SF.SQP.SANSSFTGSLGYSSSR.	RSFSKTSAQSQYIFHEEDMNYVDAPTIHRVFDEKTMYRNFSSPRGLCLIIMWEHFEQMPTRNGTKADKDNLTNIFRCMGYTWICKDNLTGREMLSTIRSF RSFSKASGPTQYIFHEEDMNYVDAPTISRVFDEKTMYRNFSSPRGMCLIIMWEHFEQMPTRNGTKADKDNLTNIFRCMGYTWICKDNLTGRAML-TIRDF RSYSKASAHSQYIFHEEDMNYVDAPTIHRVFDEKTMYRNFSTPRGLCLIIMWEHFEQMPTRNGTKADKDNISNLFRCMGYIWHCKDNLTGRAML-TIRDF TFPGLTGTLKFCPLEKAQKLWKENPSEIYPIMNTT-TRTR-LALIIGWFFQHLSPRWGAQVDLREMKLLLEDLGYTWKVKENLTALEWKREVKEF TSSGSEGNVKLCSLEEAQRIWKQKSAEIYPIMDKS-SRTR-LALIIGWFFQHLSPRWGAQVDLTGMTMLLQNLGYSVDVKKNLTASDMTTELEAF	KS.SK.SQIIFHEEDMN.VDAPTI.KVFDEKTIMIKNFSSPKGGGGLIJMWEHEGMPTIMMGTK.BKDN.TNDFKCMGILIV.GMUNDGK.BD.TIK.E	GRNDMHGDSAILVILSHGEENVINGVDDVSVNVHENYDLINAANAPRIJANKPKLVFVQACRG AKHESHGDSAILVILSHGEENVINGVDDVSISTHENYDLINAANAPRIJANKPKLVFVQACRG AKNETHGDSAILVILSHGEENVINGVDDVSVNVHENYDLINAANAPRIJANKPKLVFVQACRG AACPEHKTSDSTFLVFMSHGIQEGICGTTYSNEVSDILKVDTNFQMMYTLNCPSIKDKPKVIIIQACRG AACPEHKTSDSTFLVFMSHGIREGICGKKHSEQVPDILQINAIFNMINTKNCPSIKDKPKVIIIQACRG AHRPEHKTSDSTFLVFMSHGIREGICGKKHSEQVPDILQINAIFNMINTKNCPSIKDKFKVIIIQACRG AHRPEHKTSDSTFLVFMSHGIREGICGKKHSEQVPDILQINAIFNMINTKNCPSIKDKFKVIIIQACRG AHCDSAILVILSHGEENVINGVDDVSVHENYDLINAANAPRIJANKPKLVFVQACRG
MMRQDRWSLLER MMRQDRRSLLER M		PMECPMSPSSHRRSRALSPPGYAS EFECPMSPASHRRSRALSPAGYTS 	ERAL	RSFSKTSAQSQYIFHEEDMNYVD. RSFSKASGPTQYIFHEEDMNYVD. RSYSKASAHSQYIFHEEDMNYVD. TFPGLTGTLKFCPLEKAQKLWKE. TSSGSEGNVKLCSLEEAQRIWKQ.	KS. SK. S Q1	GRNDMHGDSAILVILSHGEEN AKHESHGDSAILVILSHGEEN AKNETHGDSAILVILSHGEEN AACPEHKTSDSTFLVFMSHGIQE AHRPHEKTSDSTFLVFMSHGIRE AHCDSAILVILSHGEEN
c. briggsae ced-3 1 ced-3 protein C.vulgaris ced-3 Mouse ICE.gw Human ICE.GW	Consensus	c. briggsae ced-3 ced-3 protein C.vulgaris ced-3 Mouse ICE.gw Human ICE.GW	Consensus	ced-3 sin sed-3 gw .GW	Consensos	c. briggsae ced-3 ced-3 profein C.vulgaris ced-3 Mouse ICE.gw Human ICE.GW

15/24

related proteins
ins of ced-3/ICE/NEDD-2 -
\simeq
f ced-3
0
regions
ਰ
t of C-terminal regions
굿
Alignment (

3 8 6		432		480			
rrgwdn rrgwdn rrgwdn rrgwdk	RG.D.	PDNVSWRHPY AQYVSWRNSA AQYVSWRNSA AQYVSWRNSA AQYVSWRNSA RGNAAMRNTK	VSWRN	QPDGRAQMPT QPEFRLQMPT TSQGSNILKQ TSQGSNILKQ TSQGANILKQ PGTEFHRCKE	GFGK.	Fig. 6D	
VPSLI VPALI FCSLLPPPLL	ч.	KUFIAPCSST AUMLIAYATT ADILIAYATT ADILIAYATT ADILIAYATT SUMICGYACL	.bra.T	-RFSFE -RKVACGFQ KKVACGFQ KKVACGFQ	GF.	Ë	
FXDSVG LKDSVR VLDSVDG- VLDSVDG- VLDSVDG- EVLLDPLGTS	Lbsv	DAIKKA-HIE DGIKKA-HIE QVWRKK-PSQ QVWRKK-PSQ QVWRKK-PSQ	КР.	DVEEIFRKV- DLEDIFRKV- DVVELLTEVN DVVELLTEVN DVVELLTEVN HVADMLVKVN	DV.E.LW.	 RNSAV -NSAV -NSAV -YPPT	:
QKCSSSKHVV		TTEEFED TDAIFED GCVRPQVQ GCVRPQVQ GCVRPQAQ GCEESDAGKE	gc	EHMQEYACSC KHMKEYAWSC EVFSLHAKDM EVFSTHAKDM EVFSLHAKDM QVFSERACDM	EVFS. A.DM	CFYLFPGH RFYLFPGH KFYFWPEDRG KFYFWPEDRN QLYLFPG	편: -
DSPGVVW EKQGVVL ERRDNGFP ERRDNGFP ERRDVGFP		SGNLSLP SEEDFL RDG-PLFNFL RDG-PLFNFL GDG-PNFL QDGKNHTQSP	.DGFL	MGSVFIGRLI RGSLFIESLI RGSWFIQAVC RGSWFIQAVC RGSWFIQAVC RGSWYIEALT	RGS.FILA.	T-ERVT-LTR A-DRVT-LTR MPELTSRILK MPENTSRILK MPELTSRILK MPELTSRILK MSEYCSTICQ	M.E. S.11.K
ICE C-terminus Mouse ICE C-ter C.briggsae C-ter ced-3 Cterminus C. vulgaris C-terminus nedd-2 protein.gw	Consensus	ICE C-terminus Mouse ICE C-ter C.briggsae C-ter ced-3 Cterminus C. vulgaris C-terminus nedd-2 protein.gw	Consensus	ICE C-terminus Mouse ICE C-ter C.briggsae C-ter ced-3Cterminus C. vulgaris C-terminus nedd-2 protein.gw	Consensus	ICE C-terminus Mouse ICE C-ter C.briggsae C-ter ced-3Cterminus C. vulgaris C-terminus nedd-2 protein.gw	Consensus

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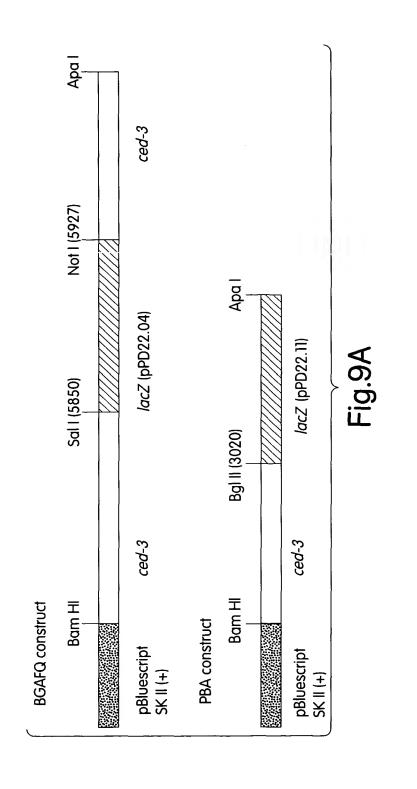
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Fig. 7

Interleukin-1B convertase cDNA sequence

```
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 101 ATTATTACAG ACAAGGGTGC TGAACAAGGA AGAGATGGAG AAAGTAAAAC
    GTGAAAATGC TACAGTTATG GATAAGACCC GAGCTTTGAT TGACTCCGTT
 151
    ATTCCGAAAG GGGCACAGGC ATGCCAAATT TGCATCACAT ACATTTGTGA
 201
 251 AGAAGACAGT TACCTGGCAG GGACGCTGGG ACTCTCAGCA GATCAAACAT
    CTGGAAATTA CCTTAATATG CAAGACTCTC AAGGAGTACT TTCTTCCTTT
 301
 351
    CCAGCTCCTC AGGCAGTGCA GGACAACCCA GCTATGCCCA CATCCTCAGG
 401 CTCAGAAGGG AATGTCAAGC TTTGCTCCCT AGAAGAAGCT CAAAGGATAT
 451 GGAAACAAA GTCGGCAGAG ATTTATCCAA TAATGGACAA GTCAAGCCGC
 501 ACACGTCTTG CTCTCATTAT CTGCAATGAA GAATTTGACA GTATTCCTAG
 551 AAGAACTGGA GCTGAGGTTG ACATCACAGG CATGACAATG CTGCTACAAA
 601 ATCTGGGGTA CAGCGTAGAT GTGAAAAAA ATCTCACTGC TTCGGACATG
 651 ACTACAGAGC TGGAGGCATT TGCACACCGC CCAGAGCACA AGACCTCTGA
 701
    CAGCACGTTC CTGGTGTTCA TGTCTCATGG TATTCGGGAA GGCATTTGTG
 751
     GGAAGAACA CTCTGAGCAA GTCCCAGATA TACTACAACT CAATGCAATC
 801
     TTTAACATGT TGAATACCAA GAACTGCCCA AGTTTGAAGG ACAAACCGAA
 851
    901
     TTAAAGATTC AGTAGGAGTT TCTGGAAACC TATCTTTACC AACTACAGAA
 951
    GAGTTTGAGG ATGATGCTAT TAAGAAAGCC CACATAGAGA AGGATTTTAT
1001 CGCTTTCTGC TCTTCCACAC CAGATAATGT TTCTTGGAGA CATCCCACAA
1051
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1101
     TGTTCCTGTG ATGTGGAGGA AATTTTCCGC AAGGTTCGAT TTTCATTTGA
1151
    GCAGCCAGAT GGTAGAGCGC AGATGCCCAC CACTGAAAGA GTGACTTTGA
1201 CAAGATGTTT CTACCTCTTC CCAGGACATT AAAATAAGGA AACTGTATGA
1251 ATGTCTGCGG GCAGGAAGTG AAGAGATCGT TCTGTAAAAG GTTTTTGGAA
1301 TTATGTCTGC TGAATAATAA ACTTTTTTTG AAATAATAAA TCTGGTAGAA
1351 AAATGAAAAA AAAAAAAAAA AAA
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Fig. 8



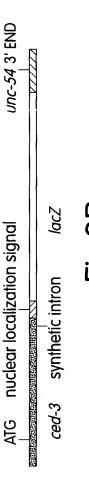


Fig.9B

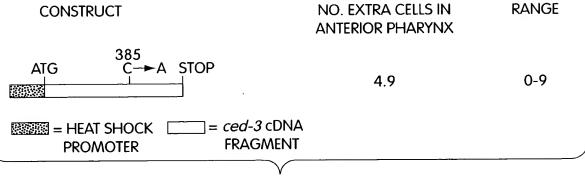
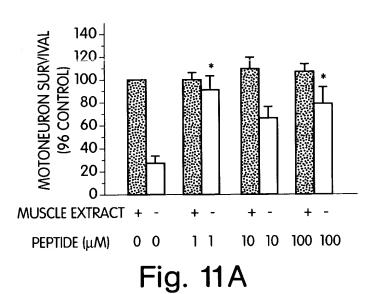


Fig. 10



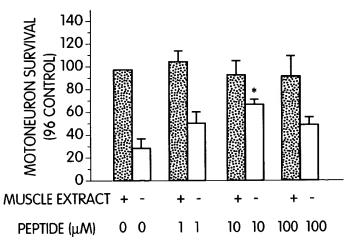
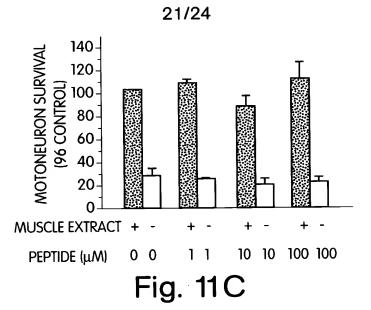
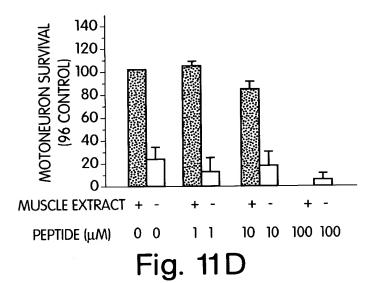
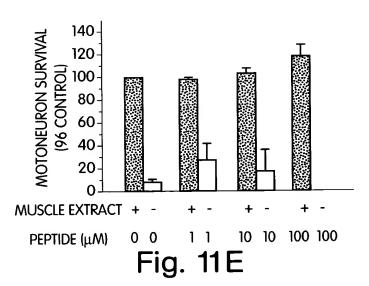
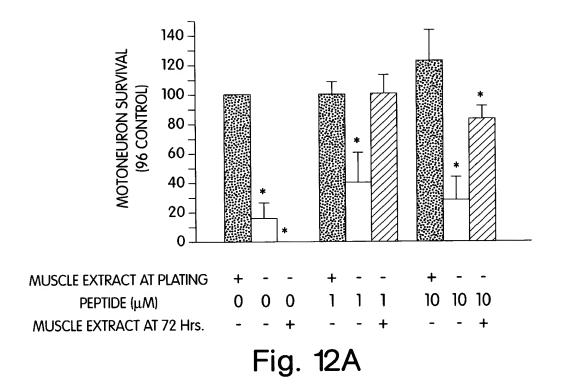


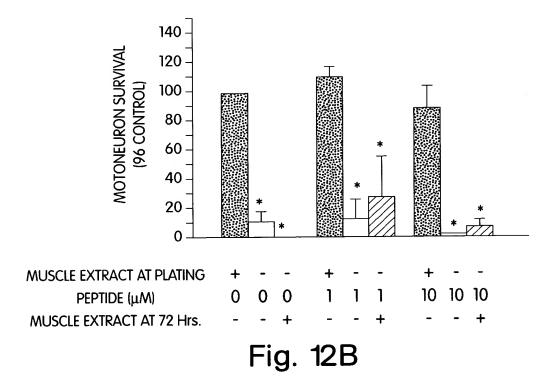
Fig. 11B

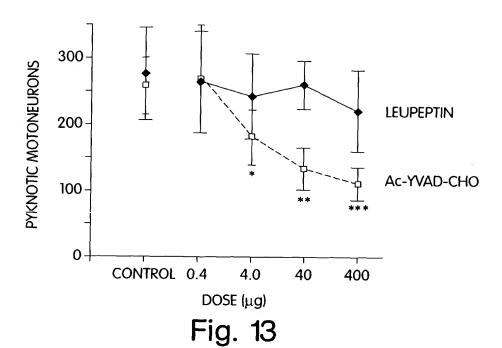


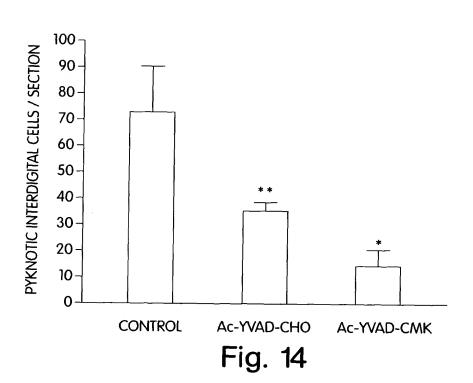












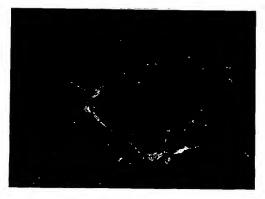


Fig. 15C

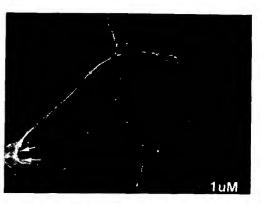


Fig. 15E

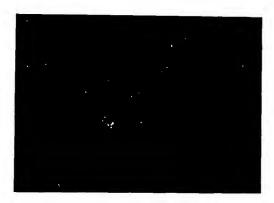


Fig. 15D

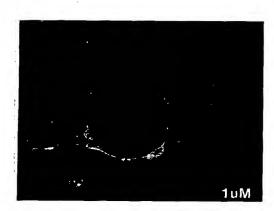


Fig. 15F

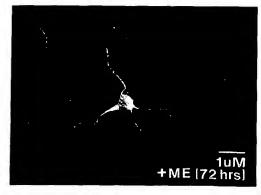


Fig. 15G